

19981111.ba v02_n296.bam.981111

>From ???@??? Thu Nov 12 00:38:57 1998
Message-Id: <199811111622.KAA08137@sco.theporch.com>
Date: Wed, 11 Nov 1998 10:21:00 CST
Subject: BOATANCHORS digest 2296

BOATANCHORS Digest 2296

Topics covered in this issue include:

- 1) Silver mica needed
by "Allan D. Fritsche" <fritsche@email.msn.com>
- 2) Help - silicon spray
by "Joseph W. Pinner" <kc5ijd@sprintmail.com>
- 3) RE: Advice Needed: Meter Repair
by "Roy S. Morgan" <roy.morgan@nist.gov>
- 4) RE: URM-25D capacitors
by "Roy S. Morgan" <roy.morgan@nist.gov>
- 5) Re: Manuals, Copies ??
by "Terry O'Laughlin" <terryo@wort-fm.terracom.net>
- 6) Re: Advice Needed: Meter Repair
by John Hurst <hurstjsj@gte.net>
- 7) Re: Manuals, Copies ??
by gwoods@albany.net (Gary Woods)
- 8) Tubes WTB
by Sandy Gerli <angerli@esslink.com>
- 9) Re: Manuals, Copies ??
by "Lawrence R. Ware" <lrware@pipeline.com>
- 10) a hint, was Re: Advice Needed: Meter Repair
by "Roberta J. Barmore" <rbarmore@indy.net>
- 11) Re: Advice Needed: Meter Repair
by Bob Roehrig <broehrig@admin.aurora.edu>
- 12) Re: SBE-34 balanced modulator question...
by "Arden Allen" <gumbear@pacbell.net>
- 13) Re: URM-25D capacitors
by "Arden Allen" <gumbear@pacbell.net>
- 14) Re: Silver mica needed
by Ed Tanton <n4xy@att.net>
- 15) Re: URM-25D cap replacement
by Ray Mote <rmote@rain.org>
- 16) 8930 RF Power Tetrode
by "Lamb, Charles E MD (IndSys, SalemVA)" <Charles.Lamb@indsys.ge.com>
- 17) What's a 159 bulb?
by Avery Comarow <acomarow@usnews.com>
- 18) Headphone Fix
by Robert Lawson <lawson_r@popmail.firn.edu>
- 19) Wanted INFO: Pope EF9 tube.

by Dan Arney <kn6di@groupone.net>
20) heath mr-21A part hunt
by "Lawrence R. Ware" <lrware@pipeline.com>

Message-ID: <000101be0d00\$1ca9be40\$a3f5fed0@default>
From: "Allan D. Fritsche" <fritsche@email.msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Silver mica needed
Date: Tue, 10 Nov 1998 17:05:37 -0600

Hi Gang, after calling every known retail/Ham parts house in Houston, I find I cannot obtain a 10 pf 1000V silver mica or for that matter mica cap. Anybody got one spare to their needs, will pay all costs, 32 cents for a stamp ,10 cents for an envelope an \$2.38 for the cap..

needs to have original long leads and has to be 1000V, goes in a final plate with 800 volts potential and no don't want to series 2 20pfs at 500V, ain't got the room.

Thanks in advance
Al
fritsche@msn.com
KD5CML

Message-Id: <199811102349.PAA20617@magpie.prod.itd.earthlink.net>
Subject: Help - silicon spray
Date: Tue, 10 Nov 1998 17:50:12 -0600
From: "Joseph W. Pinner" <kc5ijjd@sprintmail.com>
To: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="US-ASCII"

I have a TBY-2 which was 'coated' with a silicon spray by its previous owner in an attempt to protect it from humidity/water damage.

This has left problems of its own.

Any suggestions how I might remove most of this stuff????

73

Joseph W Pinner
Lafayette, LA
KC5IJD

EMail: kc5ijd@sprintmail.com

From: "Roy S. Morgan" <roy.morgan@nist.gov>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Advice Needed: Meter Repair
Date: Tue, 10 Nov 1998 18:53:36 -0500
Message-Id: <007a01be0d05\$559de000\$325f2e82@morganrswnt.dt.navy.mil>
Mime-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Short the meter terminals and see what happens. With a slug installed but not in either forward or reverse position, my Bird meter needle wanders around.

Roy

---Roy Morgan
Hydrodynamics/Hydroacoustics Technology Center
Naval Surface Warfare Center, Carderock Division
9500 MacArthur Boulevard
West Bethesda, MD 20817-5700
301-227-3827 FAX: 301-227-3884----

> -----Original Message-----
> From: Jim Garland W8ZR [mailto:4CX250B@miavx1.acs.muohio.edu]
> Sent: Saturday, November 07, 1998 12:07 PM
> To: Old Tube Radios
> Subject: Advice Needed: Meter Repair
>
>
> Hi Gang,
>
> I wonder if an experienced meter repair person could give me some advice.
> I've got two Bird Wattmeter 30uA panel meters that aren't working, and they
> both show the same symptom: there doesn't seem to be enough restoring
> tension on the needle. I can zero the needle okay with the meter in a
> vertical position, but if I turn the meter horizontally the needle just
> drifts around. There seem to be four adjustments: (1) the front bearing
> screw, (2) the rear bearing screw, (3) the (zero adjust) front coil spring,
> and (4) the rear coil spring adjustment tab. Here's what I've tried, which
> hasn't worked:
>
> (1) I adjusted the front and rear bearings so that the needle didn't
> stick, but also wasn't loose. I adjusted the bearings so that movable coil
> was centered on the magnet, so it wouldn't bind.
>

> (2) Then I adjusted the rear coil spring so that the needle read zero when
> the adjusting tab for the front spring was centered in its range (this is
> the screwdriver adjustment for setting the zero set).
>
> None of this helped. I can increase the restoring force on the needle by
> adjusting the rear spring tab, but then I can't zero the needle with the
> front spring.
>
> Any suggestions??
>
> 73,
>
> Jim Garland W8ZR
>

From: "Roy S. Morgan" <roy.morgan@nist.gov>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: URM-25D capacitors
Date: Tue, 10 Nov 1998 20:03:57 -0500
Message-Id: <007e01be0d0f\$294a2c70\$325f2e82@morganrswnt.dt.navy.mil>
Mime-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Ben and others,

The URM-25D has been given lots of attention in Hollow State News over the years. One esteemed contributor (Dallas Lankford) wrote an 11-page detailed description of the overhaul procedures for it. THE BEST one dollar I ever spent!! You can still get a copy from the HSN folks (see below).

There are many caps in that thing which need to be replaced, but the ones which cause trouble with the modulation (not starting, or being intermittent) are located in the twin-tee feedback circuit in the modulator oscillator. Drifted cap values, and leaky caps, in addition to drifted resistor values causes the thing to mis-behave. This was covered in an HSN article long after the Notes were published.

It is DEFINITELY worth replacing all the paper caps. Repeat, ALL. Mica ones are not likely bad. It is definitely worth getting a copy of Lankford's carefully detailed notes.

Notes from my experience:

1) If the frequency varies when you push and pull the frequency set knob, the culprit is the ball bearing used at the rear of the shaft that knob is on.

Remove the cast housing cover, inspect the thing to see what's wrong. The end-play adjustment screw lock nut is secured by glyptal or some such: after adjustment re-secure with nail polish or a bit of epoxy, AFTER careful cleaning of the area with a Q-tip and alcohol (don't use oil-bearing nail polish remover prior to epoxy).

2) Make sure you have a properly grounded three wire line cord. The line filter network will put the chassis at 60 volts if the case is not grounded. Do not remove the line cord filter if you intend to do small microvolt receiver sensitivity measurements with it - leakage may ruin your results. Use of this kind of line filter may pop ground fault interruptors.

3) You can fabricate the needed 50-ohm load device from a short piece of one-inch copper tube and two end caps, with two BNC connectors. Terminating the output is needed to get accurate output voltage meter readings.

4) The reason that the URM-25 is a HEAVY boat anchor is that there is a LOT of good stuff inside.. it is all needed to deliver the high level of performance that the thing is capable of. No one should ever scoff at a properly-running URM-25.

Hollow State Newsletter

Editor - Reid Wheeler
5910 Boulevard Lp SE
Olympia WA 98501-8408
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Publisher - Ralph Sanserino
P.O. Box 1831
Perris CA 92572-1831
Email: sanser@gte.net

(ABOVE information good as of 9/98)

Subscriptions - \$5 for 4 issues (3 issues published per year)
Back Issues - \$1 each, all issues currently available - minimum order is 5 issues
Selected Reprints - The best of HSN from issues 1 thru 4 - \$1;
Rebuild notes for the URM-25D - \$1
Index - Issues 1 thru 35 (9 pages - topics by Issue/page number) - \$1
Payment - Send check or money order payable to Ralph Sanserino, PO Box 1831, Perris CA 92572-1831. Prices apply to the USA, Canada, and Mexico.
Other prices to other areas. Checks and money orders must be in USA funds payable in USA clearinghouse format.

Keep em Glowing!

Roy
K1LKY since 1959

---Roy Morgan
Hydrodynamics/Hydroacoustics Technology Center
Naval Surface Warfare Center, Carderock Division
9500 MacArthur Boulevard
West Bethesda, MD 20817-5700
301-227-3827 FAX: 301-227-3884----

> -----Original Message-----
> From: kd5byb@wt.net [mailto:kd5byb@wt.net]
> Sent: Monday, November 09, 1998 10:44 PM
> To: Old Tube Radios
> Subject: URM-25D capacitors
...
>
> Now, I think that the AN/URM-25D needs caps as well.
> (it does some strange things with the modulation) .
...
> Or, more succintly put - is it worth replacing all the mica
> and ceramic caps while I'm inside it?
>
> Thanks and 73,
> Ben
> ---
> Benjamin D. Hall, KD5BYB
> e-mail: KD5BYB@WT.NET
>

Message-Id: <3.0.3.32.19981110192303.0092ed80@wort-fm.terracom.net>
Date: Tue, 10 Nov 1998 19:23:03 -0600
To: Old Tube Radios <boatanchors@theporch.com>
From: "Terry O'Laughlin" <terryo@wort-fm.terracom.net>
Subject: Re: Manuals, Copies ??
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

>Now I remember that once upon a time, most, if
>not all, pieces of equipment came with an original
>>manual, some had two !
>Now I can see the original owner making a copy of
>the manual so as not to bugger it, but where did all
>the original manuals go to ??

The university here sells all surplus equipment via the Solid Waste

Alternatives Program (SWAP). They view all surplus as landfill and avoiding landfill is the goal (because landfill tipping fees are expensive).

Manuals are paper. Paper can be recycled. Therefore, the manuals are automatically recycled. No ifs, ands, or buts. It is a stupid waste of resources, but try to get them to change their minds.

73 Terry O' WB9GVB

Message-ID: <3648E931.9FE47A1@gte.net>
Date: Tue, 10 Nov 1998 17:32:33 -0800
From: John Hurst <hurstjsj@gte.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
CC: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Advice Needed: Meter Repair
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Roy S. Morgan wrote:

>
> Short the meter terminals and see what happens. With a slug installed but not
> in either forward or reverse position, my Bird meter needle wanders around.
> Roy

It's not clear from Roy's response but this is an old trick some of the newbies might not know about for checking out a meter movement. In a Bird 43 if you leave the slug between the fwd and rev. positions it will short out the movement. With the meter shorted, jiggling the meter from side to side will allow much less movement (due to motor action) than when it's unshorted (unless of course the meter is open). This is the reason for the dummy slug; it saves wear and tear on the meter movement during transit. I can't think of a good reason why just rotating the slug won't perform the same function.

This is also a handy trick for checking out DC meters (micro and low milliamp range) when scrounging through the boxes under the tables at a hamfest.

John, KU6X

From: gwoods@albany.net (Gary Woods)
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Manuals, Copies ??
Date: Wed, 11 Nov 1998 01:36:28 GMT
Message-ID: <364ae9b0.12636060@mail.albany.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

On Tue, 10 Nov 1998 19:23:03 -0600, you wrote:

>
>Manuals are paper. Paper can be recycled. Therefore, the manuals are
>automatically recycled. No ifs, ands, or buts. It is a stupid waste of
>resources, but try to get them to change their minds.

Surely university types of all people can understand the difference between
the data _on_ the paper, and the comparatively worthless paper?

Oh wait, I'm confusing "smart" with "sensible." I've got to get over that!

--

Gary Woods O- K2AHC Public keys at www.albany.net/~gwoods, or get 0x1D64A93D via
keyserver
gwoods@albany.net gwoods@wrgrb.com
fingerprint = E2 6F 50 93 7B C7 F3 CA 1F 8B 3C C0 B0 28 68 0B

Message-ID: <3648F0C1.27899F2A@esslink.com>
Date: Tue, 10 Nov 1998 21:04:50 -0500
From: Sandy Gerli <angerli@esslink.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Tubes WTB
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

Hi,

Looking for a pair of 8122, either good pulls or reasonably-priced NOS.

73,

--

Sandy Gerli, AC1Y
500 Country Club Road
Avon, CT 06001-2406
(860) 675-5566
E-Mail: angerli@esslink.com

Life Member: ARRL, QCWA
Charter Member: Collins Collectors Association

"Boatanchors are Ham Radio's living heritage!"

Get in touch with 'em. Restore something! Smell that hot solder!
Sure beats booze. And, you can get up afterwards..."

Message-Id: <3.0.5.32.19981110220057.008a4610@pop.pipeline.com>
Date: Tue, 10 Nov 1998 22:00:57 +0000
To: Old Tube Radios <boatanchors@theporch.com>
From: "Lawrence R. Ware" <lrware@pipeline.com>
Subject: Re: Manuals, Copies ??
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

At 19:23 11/10/1998 -0600, it was posted:
>Now I remember that once upon a time, most, if
>not all, pieces of equipment came with an original
>>manual, some had two !
>Now I can see the original owner making a copy of
>the manual so as not to bugger it, but where did all
>the original manuals go to ??

Lots of ways this happens....

- 1) PMEL lab where I worked; Never turned loose of a manual, just because we did not own it anymore did not mean we would not have to fix one in the future. Thus into the in house lib. it went.
- 2) I have bought/sold a number of HRO-50/60's I have one original book for each... Kept the books for same reason as above. Provide a photocopy with each radio leaving here instead.
- 3) Local Antique radio club, auctions radios and paper as separate items... donation from anyone thus becomes two items that may not end up with the same bidder.
- 4) etc. etc. etc.

-Larry Ware
lrware@pipeline.com
Orlando, Florida

Date: Tue, 10 Nov 1998 22:30:15 -0500 (EST)
From: "Roberta J. Barmore" <rbarmore@indy.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: a hint, was Re: Advice Needed: Meter Repair
Message-ID: <Pine.SUN.3.96.981110222614.18986A-100000@indy2>

MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi!

John & Roy's posts remind of an advantage in using sensitive meter movements & shunting 'em for higher-current ranges: there's a lot more damping, so a plate current meter (for instance) doesn't bang around quite as wildly during tuneup or keying.

Happens I inherited a whole batch of 1950s-vintage ex-RCA TV transmitter meters, many of which are 1mA/1V/1k (usually about 980R etc. but close enough). Shunted to 100mA, they're very well-behaved meters. :)

73,
--Bobbi

KB9GKX "RJ" rbarmore@indy.net Roberta J. (Bobbi) Barmore
FISTS #3388 * G-QRP #10001 * ARRL * RSGB * WIA
Appreciator Of Vacuum-Tube Ham Gear and Vintage Keys

Date: Tue, 10 Nov 1998 21:49:05 -0600 (CST)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
cc: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Advice Needed: Meter Repair
Message-ID: <Pine.ULT.3.96.981110214535.7264B-100000@admin.aurora.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

On Tue, 10 Nov 1998, John Hurst wrote:

> In a Bird 43 if you leave the slug between the fwd and rev. positions it
> will short out the movement.

I always keep an element in my Bird and keep it in mid position to protect the meter when not in use.

> This is the reason for the dummy slug; it saves wear and tear on the meter
> movement during transit. I can't think of a good reason why just
> rotating the slug won't perform the same function.

It does. I think the dummy slugs were provided with a new meter to protect it during shipment.

> This is also a handy trick for checking out DC meters (micro and low

> milliamp range) when scrounging through the boxes under the tables at a
> hamfest.

One should always place a short across current meters for shipping.

"Nostalgia is a thing of the past"
E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL
630-844-4898 Fax 630-844-5530

Message-Id: <199811110402.UAA20859@mail-gw6.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: SBE-34 balanced modulator question...
Date: Tue, 10 Nov 1998 20:02:55 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Hi Jim;

Well at least you can count to four...HI!

> 1. Should I have changed all four diodes?

No.

> 2. Should all four diodes be matched?

No.

> 3. If I match them, and given that I don't have a curve tracer, what
should
> the matching criteria be? V_f @ a certain I_f ? At one point? Two Points?
> "n" points?

Hang on.

> 4. If the diodes aren't matched, what behavioral symptoms am I likely to
> see? (For example, will carrier suppression be suboptimal? Or will
> complete carrier null be impossible to obtain?)

Ok, now we can get to some answers. Your diode ring sideband demodulator
is not so much a mystery as you may have conjured up in a bad dream. I'm
sure you are familiar with a four diode full wave rectifier, ain't 'cha?
The salient features of full wave bridge rectifiers and diode ring

demodulators are virtually the same. When the diodes that are supposed to be on are on and the diodes that are supposed to be off are off. High foreward conductance and high reverse impedance best describes a good diode. Your affair there probably has a fair amount of BFO injection so the diodes are nicely being turned on and off. The foreward turn on "knee" is not of much effect on demodulation because that region is quickly transitioned by the large BFO swing. So all the diode ring is doing is being a *switch mode mixer*. Like a diode detector it has inherently good linearity. Take some graph paper and draw the output as a result of two input frequencies before the output low-pass filter and after the low-pass filter. As long as your diodes are good and switch quickly (as in don't use a 1N4001) any improvement to be obtained trying to "match" diodes will be like trying to train a horse to swat YOUR flys with its tail.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Message-Id: <199811110425.UAA29178@mail-gw6.pacbell.net>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: URM-25D capacitors
Date: Tue, 10 Nov 1998 20:19:02 -0800
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit

Hello Ben;

> Or, more succintly put - is it worth replacing all the mica
> and ceramic caps while I'm inside it?

To be succinct,.....no,.....emphatic,.....blatantly so,.....HELL NO!

Like any expert restorer of antiquity, the BAist's credo should be "Do less harm by doing less".

Only change a bad capacitor. One you can tell is bad by no less than taking carefull voltage measurements with a good VTVM (or other high impedance voltmeter.....sand state cop-out). Do the math. Ohm's Law. A good cap has an insulation resistance (by BA standards) of a few thousand megohms or more. Measure voltages, write down numbers on paper, limber up the buttons on your calculator. It's not that hard.

You can seriously degrade a piece of equipment like a URM-25D's performance by changing ceramic capacitors especially where the temperature coefficients of the capacitors are what controls the drift rate of the oscillator.

Arden Allen KB6NAX Vallejo, CA gumbear@pacbell.net

Message-Id: <3.0.5.32.19981111004849.00c06880@postoffice.worldnet.att.net>
Date: Wed, 11 Nov 1998 00:48:49 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Ed Tanton <n4xy@att.net>
Subject: Re: Silver mica needed
Cc: Old Tube Radios <boatanchors@theporch.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi Al... why not simply take a pair of 500V 20pf caps and series them?
They're easy to get... and I know of no reason it wouldn't work just fine.

>Hi Gang, after calling every known retail/Ham parts house in Houston, I
>find I cannot obtain a 10 pf 1000V silver mica
>Al
>fritzsche@msn.com
>KD5CML
>

73

Ed Tanton N4XY EMAIL: n4xy@att.net
189 Pioneer Trail
Marietta, GA 30068-3466 TEL: (770)579-3933 V/MBX/FAX

INTERESTS: QRP BoatAnchors Test Equipment Photography
CW: 99.9% Mercury Pad.# 0214 Hensley Pad.#002 QRP>150W: 95%

~~~~~  
"Think you can, think you can't: either way you're right!" Henry Ford  
~~~~~

Date: Tue, 10 Nov 1998 23:24:20 -0800 (PST)
From: Ray Mote <rmote@rain.org>
To: Old Tube Radios <boatanchors@theporch.com>
cc: kd5byb@wt.net, basalop@gte.net
Subject: Re: URM-25D cap replacement
Message-ID: <Pine.SUN.4.05.9811102308000.2088-1000000@coyote.rain.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Dang it! Why does this always happen *after* I've already packed the
pertinent documentation? Okay, here goes:

Ben & Jim: Don't replace *all* caps; there are only about 7 that cause

the most problems. See below.

If I remember right, there are about 7 Micamold caps in the '25D. Five are on the little component board on the right side as you pull it out of the case, and two more are in that blasted aluminum labyrinth. Dallas Lankford wrote an outstanding step-by-step article on refurbishing the '25D for HOLLOW STATE NEWSLETTER sometime back. You really **need** that article and a reprint is only a buck or two, I believe. If words like "then you 'Chinese-puzzle' it out of there" scare you, then you'd better pay close attention to what he says. It's not that difficult, but you **can** damage other components if you're not careful.

While you're in there, I'd advise replacing the feedthru caps for the line cord, if they're still mounted on the end of the box. They're just not sturdy enough to take the punishment where they're located. Dallas talks about that, too. Ditto for replacing the output level pots; no sense ever having to go back inside that metal monstrosity again if you don't have to!

Reid Wheeler <reid@olywa.net> is the editor of HSN, and frequents this list. Ralph Sanserino <sanser@pe.net> was still the publisher, the last I heard. Reprint of a single back issue is only \$1, and a whole year is only \$5. At that price, you can't afford **not** to get the article because of the work (and possible damage) it will save you. Be sure and ask for the layouts I submitted on that circuit board -- I did drawings of both the component and eyelet sides to make it easier for those troubleshooting these beasts. Yes, my masters are already packed, too. :(You'll have to talk to Reid or Ralph.

If you like to fly blind by the seat of your pants, be my guest. If you'd rather have someone take you by the hand and lead you through it, then that article will meet your needs. Once you check the list of Micamold caps and check the schematic, you'll understand why you lose audio and occasionally see hellacious grid biases! I hope you saved a copy of Sandy's comments, too.

73....Ray Mote, K5FKT <rmote@rain.org> Oxnard, CA

Message-ID: <ED376DB16DFFD01189E700805F1961B5011A7D53@vasale02misge.salem.ge.com>
From: "Lamb, Charles E MD (IndSys, SalemVA)" <Charles.Lamb@indsys.ge.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: 8930 RF Power Tetrode
Date: Wed, 11 Nov 1998 08:50:28 -0500

Hello all,

I have just completed conversion of a 80 # single tube AM-6154 amplifier (Unquestionably a boatanchor) to amateur service only to find that the 8930 tube is lifeless. I know the rest of the unit is fine and I can make power with a 4CX250B (AKA 7203). Unfortunately, this common power tube has a smaller external plate circumference than the 8930. So in addition to pleading for help, (I need a new tube!) I thought it might be interesting to enter this as a topic for discussion. This tube (also known as a 7580W with a 30% larger finned plate radiator) is an electrical double to the more familiar 250B mentioned above. The differences include more rugged internal construction and, in the non-eimac versions, a special passivated core which supposedly holds up better in pulse service. The primary benefit of the larger diameter top is reduced airflow/blower noise for same dissipation. I did fabricate a plate collar from some common plumbing materials which allows me to use the 7203, but this airflow issue will assure me of reduced tube life. Also, I believe I understand Lud Sibley's statement that these tubes have "higher perveance" than their junior cousins, but I am not sure. Therefore, two questions: (1) Anyone care to take a stab at defining perveance in this context and (2) anyone have a working 8930 they would care to sell me? Also, has anyone had experience using a Svetlana 4CX400 in this application? (supposed to be even more robust).

Best Wishes,

Charles

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Message-Id: <2.2.32.19981111141314.00d4969c@ntpop.usnews.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"
Date: Wed, 11 Nov 1998 09:13:14 -0500
To: Old Tube Radios <boatanchors@theporch.com>
From: Avery Comarow <acomarow@usnews.com>
Subject: What's a 159 bulb?

I came across half a dozen incandescent bulbs last night labeled #159--average size (envelopes a little bigger than a #47), with a slide-in base. All look good. If someone has a use for them, I'd be happy to send 'em off for a buck or two plus postage.

Best, Avery W40GK

Date: Wed, 11 Nov 1998 09:24:24 -0500
From: Robert Lawson <lawson_r@popmail.firn.edu>
Subject: Headphone Fix
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <36499E18.5F66@popmail.firn.edu>
MIME-version: 1.0
Content-type: text/plain; charset=us-ascii
Content-transfer-encoding: 7bit

Thought I'd share this with all of you. I have a set of nice Kenwood HS-5 headphones that I use with my BA receivers. One of the speaker elements went bad. After several weeks and many phone calls trying to find a direct replacement, I just about gave up. As a last chance, I went by Radio Shack and found an eight ohm mini-speaker with a diameter of 1 & 1/2 inches, part number 273-092. Replaced both elements in order to keep the dynamics equal. They sound great now and the cost was about 5 bucks.

73 Robert WPE4FGR W4RL Pensacola

Message-ID: <3649B0E9.884AB820@groupone.net>
Date: Wed, 11 Nov 1998 07:44:41 -0800
From: Dan Arney <kn6di@groupone.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Wanted INFO: Pope EF9 tube.
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

A friend of mine has a radio from Europe that has a Pope EF9 tube it has 8 flat pins, a red glass envelope that is loose at the base and it has a smooth edge, not like it is broken and you can twist it about a 1/8" in either direction and has several wraps of a very fine copper wire wrapped around it and soldered to one of the pins. Wire size is around 30 or so. Has a plate cap and he says when he touches the plate cap the radio hums a little louder.

Anybody know who, what, where, how to find info on one of these little devils.

Thanks,

73

Hank

Message-Id: <3.0.5.32.19981111112153.008b8d90@pop.pipeline.com>
Date: Wed, 11 Nov 1998 11:21:53 +0000
To: Old Tube Radios <boatanchors@theporch.com>
From: "Lawrence R. Ware" <lrware@pipeline.com>

Subject: heath mr-21A part hunt
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

A cute little MR-21A DF receiver is sitting around here looking for the last part I need to get it back in shape.

The ferrite bar antenna uses an unusual version of a 3 conductor 1/4" phone plug to connect to the rest of the radio. This is almost a standard phone plug: The only difference is it is designed to chassis mount instead of being the more common cable end plug.

These used to be a standard Switchcraft catalog part. Alas, I can no longer find them in my new shortform version of the catalog. Perhaps the big version still lists them?

I have also seen these used from time to time in small effects boxes for guitar players. Looks like a standard plug except it *chassis* mounts. (Has threads, nut, etc. instead of the standard sleeve as seen on a cable end.)

Anyone got a 3 conductor version is the junk box?
Will be happy to trade beer money + postage to get one.
-Larry

This message transmitted with 100% recycled electrons.
Your voltage may vary. :-)
Larry Ware
lrware@pipeline.com

End of BOATANCHORS Digest 2296
